

OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
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NOTICE OF PROPOSED MODIFICATIONS TO

CALIFORNIA CODE OF REGULATIONS

TITLE 8, Division 1, Chapter 4, Subchapter 4, Article 22, Section 1648; Article 25, Sections 1675 and 1678 of the Construction Safety Orders; and Article 4, Sections 3276, 3277, 3278, 3279, and 3280; Article 5, Section 3287; and Article 11, Section 3413
of the General Industry Safety Orders

Portable Ladders

Pursuant to Government Code Section 11346.8(c), the Occupational Safety and Health Standards Board (Standards Board) gives notice of the opportunity to submit written comments on the above-named regulations in which further modifications are being considered as a result of public comments and/or Board staff evaluation.

On December 17, 2009, the Occupational Safety and Health Standards Board held a Public Hearing to consider revisions to Title 8, Division 1, Construction Safety Orders, Sections 1675 and 1678 and General Industry Safety Orders, Sections 3276, 3277, 3278, 3279, 3280, 3287, and 3413. The Standards Board received oral and written comments on the proposed modifications. The regulations have been modified as a result of these comments.

A copy of the full text of the regulations with the modifications clearly indicated is attached for your information. In addition, a summary of all oral and written comments regarding the original proposal and responses is included.

Pursuant to Government Code Section 11346.8(d), notice is also given of the opportunity to submit comments concerning the addition to the rulemaking file of the following document relied upon that was inadvertently not identified in the Initial Statement of Reasons:

DOCUMENT RELIED UPON

- Division of Occupational Safety and Health Form 9, Request for New, or Change in Existing Safety Order, dated January 23, 2007.

This document is available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

Pursuant to Government Code Section 11346.8(d), notice is also given of the opportunity to submit comments concerning the addition to the rulemaking file of the following additional document relied upon:

ADDITIONAL DOCUMENT RELIED UPON

- Worker Death By Falls, A Summary of Surveillance Findings and Investigative Case Reports, Part 1, Fatal Falls From Elevations, U.S. Department of Health and Human Services, September 2000.

This document is available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

Any written comments on these modifications must be received by 5:00 p.m. on **July 20, 2010** at the Occupational Safety and Health Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833 or submitted by fax at (916) 274-5743 or e-mailed at oshsb@dir.ca.gov. These regulations will be scheduled for adoption at a future Business Meeting of the Occupational Safety and Health Standards Board.

The Occupational Safety and Health Standards Board's rulemaking file on the proposed action is open to public inspection Monday through Friday, from 8:00 a.m. to 4:30 p.m. at the Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, California.

Inquires concerning the proposed modifications may be directed to the Executive Officer, Marley Hart at (916) 274-5721.

OCCUPATIONAL SAFETY AND HEALTH
STANDARDS BOARD

Marley Hart, Executive Officer

Date: July 1, 2010

Proposed Modifications of the Original Proposal

(Modifications are indicated with **bold** double underline for new language or **~~bold~~** double strike-out for deleted language.)

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Amend Sections 1648, 1675, 1678, 3276, 3277, 3278, 3279, 3280, 3287 and 3413, as follows:

§1648. Ladder-Jack Scaffolds.

* * *

(d) All ladders used in connection with ladder jack scaffolds shall be ~~heavy-duty Type I, IA, or IAA duty rated~~ ladders and shall be designed and constructed in accordance with the General Industry Safety Orders, Sections ~~3278 and 3279~~ 3276(c). Job-built ladders shall not be used for this purpose.

NOTE: See Section 3276(d) for portable ladder types, duty ratings and working loads.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

* * *

§1675. General.

(a) General requirements. Except where either permanent or temporary stairways or suitable ramps or runways are provided, ladders described in this section shall be used to give safe access to all elevations.

~~(b) The use of ladders with broken or missing rungs or steps, broken or split side rails, or other faulty or defective construction is prohibited. When ladders with such defects are discovered they shall be immediately withdrawn from service. Inspection of metal ladders shall include checking for corrosion of interiors of open end hollow rungs.~~

(b) All portable ladders used in construction shall comply with the provisions of Section 3276 of the General Industry Safety Orders.

~~(c) Manufactured portable wood ladders provided by the employer shall be labeled as being designed and manufactured in accordance with the provisions of the American National Standards Institute, A 14.1 1982, ladders — portable wood — safety requirements. Labels are not required on portable wood ladders purchased prior to July 1, 1992.~~

(c) All fixed ladders used in construction shall comply with the provisions of Section 3277 of the General Industry Safety Orders.

~~(d) Portable metal ladders shall be of strength equivalent to that of wood ladders. Manufactured portable metal ladders provided by the employer shall be labeled as being designed and manufactured in accordance with the provisions of the American National Standards Institute, A 14.2 1982, ladders — portable metal — safety requirements. Labels are not required on portable metal ladders purchased prior to July 1, 1992.~~

~~(e) Portable ladder feet shall be placed on a substantial base, and the area around the top and bottom of the ladder shall be kept clear.~~

~~(f) Planks shall not be used on the top step of stepladders.~~

~~(g) Portable ladders shall be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder (the~~

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~~length along the ladder between the foot and the top support). Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.~~

~~(h) Ladders shall not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.~~

~~(i) The side rails shall extend not less than 36 inches above the landing. When this is not practical, grab rails, which provide a secure grip for an employee moving to or from the point of access, shall be installed.~~

~~(j) Portable ladders in use shall be tied, blocked, or otherwise secured to prevent their being displaced.~~

~~(k) No one shall be permitted to stand and work on the top 3 rungs or cleats of a ladder unless there are members of the structure that provide a firm handhold or the employee is protected by a personal fall protection system (e.g., positioning device or fall restraint system) in accordance with the requirements of Article 24 (commencing with Section 1669) of the Construction Safety Orders.~~

~~(l) Portable metal ladders shall not be used for electrical work or where they may contact electrical conductors.~~

~~(m) All fixed ladders used in construction shall comply with the provisions of Section 3277 of the General Industry Safety Orders.~~

~~(n) Stepladders. Employees shall not stand on the topeap or the step below the topeap of a stepladder.~~

~~NOTE: For the purposes of subsection (n) the topeap is not a step.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

* * *

§1678. Extension Ladders.

~~(a) Extension ladders shall not exceed 44 feet in length when extended to the limit permitted by the following lap schedule.~~

~~(b) Extension ladders shall not be fully extended but shall have the following minimum laps:~~

~~(1) Two-Section Ladders-~~

~~3 feet for ladders with working length up to 33 feet-~~

~~4 feet for ladders with working length 33 to 44 feet-~~

~~(2) Three-Section Ladders-~~

~~4 feet for each section-~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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§3276. §3278. Use of Fixed Ladders.-

(a) Employees shall:

- (1) be prohibited from carrying equipment or materials which prevent the safe use of ladders;
- (2) be required to face the ladder when ascending and descending;
- (3) always use both hands when climbing up or down the ladder; and
- (4) be prohibited from using single-rail ladders.

~~(b) Employees shall not stand on the topecap or the step below the topecap of a stepladder.~~

~~NOTE: For the purposes of subsection (b) the topecap is not a step.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

§3277. Fixed Ladders.

* * *

(c) Design Considerations. All ladders, appurtenances, and fastenings shall be designed to meet the following load requirements:

* * *

(5) All wood parts of fixed ladders shall meet the design and construction requirements ~~of~~ for portable wood ladders in Section ~~3278~~ 3276(c).

(6) For fixed ladders consisting of wood side rails and wood rungs or cleats, used at a pitch in the range 75 degrees to 90 degrees, and intended for use by no more than one person per section, single ladders or cleat ladders as described in Section ~~3278~~ 3276 are acceptable.

* * *

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

§3278 §3276. Portable Wood Ladders.

~~Safety requirements for portable wood ladders placed in service after April 18, 1999, shall meet the requirements of ANSI A14.1-1994, which is hereby incorporated by reference. Safety requirements for portable wood ladders placed in service on or before April 18, 1999, shall be based on the ANSI A14.1 provisions in effect at the time such ladders were placed in service.~~

(a) Scope. This section is intended to prescribe rules and establish minimum requirements for the design, construction, selection, care, and use of the common types of all self-supporting and non-self-supporting portable wood ladders, in order to insure safety under normal conditions of usage. This section does not apply to ladder type step stools or other types of step stools except for the definition of "step stool (ladder type)" in subsection (b) and the design and construction requirements of subsection (c)(5).

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(b) Definitions.

* * *

Step Ladder. A step ladder is a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. Its size is designated by the overall length of the ladder measured along the front edge of the side rails.

Step stool (ladder type). A self-supporting, foldable, portable ladder, nonadjustable in length, 32 inches or less in length, with flat steps and without a pail shelf, designed so that the ladder top cap as well as all steps can be climbed on. The side rails may extend above the top-cap but such extension is not considered as part of the step stool length.

* * *

~~(c) Materials. General Requirements. All wood parts shall be free from sharp edges, splinters, irregularities and defects which affect the ladders structural integrity.~~

Design and Construction.

(1) Portable wood ladders placed in service after [effective date] shall meet the design and construction requirements of ANSI A14.1-2007, American National Standard for Ladders – Wood Safety Requirements, which is hereby incorporated by reference. Portable wood ladders placed in service on or before [effective date], shall meet the design and construction requirements of the ANSI A14.1 standard in effect at the time such ladders were placed in service.

EXCEPTION: Portable job-made cleat ladders that are designed and constructed in accordance with the requirements of Section 1676 of the Construction Safety Orders.

(2) Portable metal ladders placed in service after [effective date], shall meet the design and construction requirements of ANSI A14.2-2007, American National Standard for Ladders – Portable Metal – Safety Requirements, which is hereby incorporated by reference. Portable metal ladders placed in service on or before [effective date], shall meet the design and construction requirements of either the ANSI A14.2 standard or the ANSI A14.10 standard, American National Standard for Ladders – Portable Special Duty Ladders, in effect at the time such ladders were placed in service.

(3) Portable reinforced plastic ladders placed in service after [effective date], shall meet the design and construction requirements of ANSI A14.5-2007, American National Standard for Ladders – Portable Reinforced Plastic – Safety Requirements, which is hereby incorporated by reference. Portable reinforced plastic ladders placed in service on or before [effective date], shall meet the design and construction requirements of either the ANSI A14.5 standard or the ANSI A14.10 standard in effect at the time such ladders were placed in service.

(4) Portable special purpose ladders that are not covered by one of the ANSI A14 standards referenced in this section shall be designed and constructed in accordance with sound engineering principles and approved per Section 3206.

(5) Ladder type step stools shall be designed and constructed such that the rungs, cleats, and steps are not less than 8 inches apart, or more than 12 inches apart, as measured between center lines of the rungs, cleats, and steps.

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~~(d) Construction Requirements.~~

~~(1) Portable Step Ladders.~~

~~(A) Step ladders longer than 20 feet shall not be used. Step ladders as hereinafter specified shall be of three types, as follows:~~

~~Type I--Industrial step ladder, 3 to 20 feet for heavy duty, such as utilities, contractors, and industrial use~~

~~Type II--Commercial step ladder, 3 to 12 feet for medium duty, such as painters, offices, and light industrial use~~

~~Type III--Household step ladder, 3 to 6 feet for light duty, such as light household use.~~

~~(B) Step Spacing. A uniform step spacing shall be employed which shall be not more than 12 inches. Steps shall be parallel and level when the ladder is in position for use.~~

~~(C) Width and Spread. The minimum width between side rails at the top, inside to inside, shall be not less than 11 1/2 inches. From top to bottom, the side rails shall spread at least 1 inch for each foot of length of step ladder. Rungs shall be continuous members between rails.~~

~~(D) Spreader. A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open position shall be a component of each step ladder. The spreader shall have all sharp points covered or removed to protect the user. For Type III ladder, the pail shelf and spreader may be combined in one unit (the so-called shelf-lock ladder).~~

(d) Selection.

(1) Ladders shall be selected and their use restricted to the purpose for which the ladder is designed.

(A) Scaffolds or other worker positioning equipment shall be used when work cannot be safely done from ladders.

(B) Portable ladders are generally designed for one-person use to meet the requirements of the person, the task, and the environment. When selecting a ladder for use, consideration shall be given to the ladder length or height required, the working load, the duty rating, worker position to the task to be performed, and the frequency of use to which the ladder will be subjected.

NOTE: Subsection (e)(16)(D) prohibits the use of ladders that exceed specified maximum lengths.

(2) Single Ladder Length. Single ladders longer than 30 feet shall not be used. Ladders shall be used according to the following duty classifications:

<u>Duty Rating</u>	<u>Ladder Type</u>	<u>Working Load (Pounds)</u>
<u>Special Duty</u>	<u>IAA</u>	<u>375</u>
<u>Extra Heavy-Duty</u>	<u>IA</u>	<u>300</u>
<u>Heavy-Duty</u>	<u>I</u>	<u>250</u>
<u>Medium-Duty</u>	<u>II</u>	<u>225</u>
<u>Light-Duty</u>	<u>III</u>	<u>200</u>

(3) Two-Section Ladder Length. Two-section extension ladders longer than 60 feet shall not be used. All ladders of this type shall consist of two sections, one to fit within the side rails of the other, and arranged in such a manner that the upper section can be raised and lowered.

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Ladders used in connection with ladder jack scaffolds shall be Type I, IA, or IAA duty rated ladders and shall be installed and used in accordance with the Construction Safety Orders, Section 1648.

~~(4) Trestle and Extension Trestle Ladder Length. Trestle ladders, or extension sections or base sections of extension trestle ladders longer than 20 feet shall not be used.~~

(4) Ladders used in connection with outdoor advertising structures shall be Type I, IA, or IAA duty rated and shall be used in accordance with Section 3413.

~~(5) Painter's Step Ladder. Painter's step ladders longer than 12 feet shall not be used.~~

~~(6) Mason's Ladder. A mason's ladder is a special type of single ladder intended for use in heavy construction work. Mason's ladders longer than 40 feet shall not be used.~~

~~(7) Cleat Ladder. A cleat ladder is a special type of single ladder intended for general use in construction work.~~

~~(A) Cleat ladders longer than 30 feet shall not be used.~~

~~(B) Wood side rails of ladders having cleat steps shall not be less than 1 1/2 inches thick and 3 1/2 inches deep (2 by 4 inches nominal).~~

~~(C) Wood cleats shall be inset into side rails not less than 1/2-inch or shall be attached directly to the edge of the side rails, in which case filler blocks of the thickness of the cleats shall be securely attached to the edge of the rail for the full length between cleats, or equivalent construction. The cleats shall be fastened to each rail by three 10-d wire nails or the equivalent thereof.~~

~~(8) Double Cleat Ladder. A double cleat ladder is similar to a single cleat ladder, but is wider, with an additional center rail which will allow for two-way traffic for workers in ascending and descending. The cleats shall extend the full width of the ladder.~~

~~(9) Other Types of Special Ladders. Other types of special ladders such as three-section extension ladders, fruitpicker's ladders, combination step and extension ladders, stockroom step ladders, aisle-way step ladders, shelf ladders, and library ladders are not specifically covered by this code.~~

~~(10) Trolley and Side-Rolling Ladders. Trolley ladders and side-rolling ladders longer than 20 feet shall not be used.~~

~~(e) Care, and Use, Inspection and Maintenance of Ladders.~~

~~(1) Maintenance. Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play. **Metal ladders shall not be exposed to acid or alkali materials that are capable of corroding the ladder and reducing the ladder's strength, unless the employer obtains and follows the recommendations of the ladder manufacturer or a qualified person regarding exposure to corrosive materials.**~~

~~(2) Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.~~

~~Inspection. Ladders shall be inspected by a **competent qualified** person for visible defects prior to the start of the shift periodically and after any occurrence that could affect their safe use.~~

~~(3) Frayed or badly worn rope shall be replaced.~~

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Damaged Ladders. Ladders that have developed defects shall be withdrawn from service for repair or destruction; and tagged or marked as "Dangerous, Do Not Use" or with similar language. Ladders with broken or missing steps, rungs, cleats, safety feet, side rails, or other defects shall not be used.

(4) ~~Safety feet and other auxiliary equipment shall be kept in good condition to insure proper performance.~~

Cleaning. Ladders shall be ~~cleaned~~ free of oil, grease, or slippery materials.

~~(5) Ladders shall be inspected frequently and those which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use".~~

Protective Surface Coatings.

~~(A) When metal ladders are to be subjected to deteriorating agents, a protective coating shall be applied in accordance with the manufacturer's guidelines.~~

~~(B)~~ Wood ladders shall not be painted with other than a transparent material.

~~(6) Rungs shall be kept free of grease and oil.~~

Loading. Portable ladders shall not be overloaded when used.

~~(7) Portable rung and cleat ladders shall, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). The ladder shall be so placed as to prevent slipping, or it shall be lashed, or held in position. Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.~~

Footing Support. The ladder base section of surface supported ladders shall be placed on a secure and level footing. When necessary, ladder levelers shall be used to achieve equal rail support on uneven surfaces. Ladders shall not be placed on boxes, barrels or other unstable bases to obtain additional height. Ladders shall not be used on ice, snow or slippery surfaces unless suitable means to prevent slippage have been employed.

~~(8) Ladders for which dimensions are specified herein should not be used by more than one man at a time nor with ladder jacks and scaffold planks where use by more than one man is anticipated. In such cases, specially designed ladders with larger dimensions of the parts shall be procured.~~

Top Support. The top of non-self-supporting ladders such as single and extension ladders shall be placed with the two rails supported equally, unless a single support attachment is provided and used.

~~(9) Portable ladders shall be so placed that the side rails have a secure footing. The top rest for portable rung and cleat ladders shall be reasonably rigid and shall have ample strength to support the applied load.~~

(9) Angle of Inclination. Non-self-supporting ladders such as single ladders and extension ladders shall, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). The ladder shall be so placed as to prevent slipping, or it shall be tied, blocked, held, or otherwise secured to prevent slipping.

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Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds unless designed for such use.

~~(10) Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.~~

Access to Elevated Work Areas. Except when portable ladders are used to gain access to fixed ladders (such as those on utility towers, billboards, and other structures where the bottom of the fixed ladder is elevated to limit access), when two or more separate ladders are used to reach an elevated work area, the ladders shall be offset with a platform or landing between the ladders.

~~(11) Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.~~

Access to Landings. When portable ladders are used for access to an upper landing surface, the side rails shall extend not less than 36 inches above the upper landing surface to which the ladder is used to gain access; or when such an extension is not possible, then the ladder shall be secured at its top to a rigid support that will not deflect, and a grasping device, such as a grab-rail, shall be provided to assist employees in mounting and dismounting the ladder. In no case shall the extension be such that ladder deflection under a load would, by itself, cause the ladder to slip off its support.

EXCEPTION No. 1: A grasping device such as a grab-rail is not required where the employee is protected by personal fall protection system in accordance with Article 24 of the Construction Safety Orders, Article 36 of the High-Voltage Electrical Safety Orders, Article 12 of the General Industry Safety Orders, or Article 1 of the Telecommunication Safety Orders. **Operations or conditions not specifically covered by Article 36 of the High-Voltage Electrical Safety Orders, Article 12 of the General Industry Safety Orders, or Article 1 of the Telecommunication Safety Orders shall comply with the fall protection provisions of Article 24 of the Construction Safety Orders.**

EXCEPTION No. 2: The provisions of this subsection do not apply to emergency rescue and emergency rescue training operations where it is not practical to extend a portable ladder 36 inches or more above the landing surface.

~~(12) Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment shall not be used.~~

Fastening Together. Ladders shall not be tied or fastened together to provide longer sections unless the ladders are designed for such use and equipped with the necessary hardware fittings.

~~(13) Short ladders shall not be spliced together to provide long sections.~~

Erection of Extension Ladders. Extension ladders shall always be erected so that the top section (fly section) is above and resting on the bottom section (base section) with the rung locks engaged.

~~(14) Ladders made by fastening cleats across a single rail shall not be used.~~

Ladder Placement. Ladders shall not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.

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(15) ~~Ladders shall not be used as guys, braces, or skids, or for other than their intended purposes.~~

Climbing and Working on Ladders.

(A) The employee shall climb or work with the body near the middle of the step or rung and shall not overreach from this position. When necessary to avoid overreaching, the employee shall descend and reposition the ladder. When it is not practical to work with the body near the middle of the step or rung, the ladder shall be secured to the top support, and the employee shall be protected by a personal fall protection system in accordance with Article 36 of the High-Voltage Electrical Safety Orders, Article 24 of the Construction Safety Orders, Article 12 of the General Industry Safety Orders, or Article 1 of the Telecommunication Safety Orders. **Operations or conditions not specifically covered by Article 36 of the High-Voltage Electrical Safety Orders, Article 12 of the General Industry Safety Orders, or Article 1 of the Telecommunication Safety Orders shall comply with the fall protection provisions of Article 24 of the Construction Safety Orders.**

(B) Employees shall be prohibited from carrying equipment or materials which prevent the safe use of ladders.

(C) When ascending or descending a ladder, the user shall face the ladder and maintain contact with the ladder at three-points at all times.

NOTE: Contact with the ladder at three points means two feet and one hand, or two hands and one foot which is safely supporting the user's weight.

(D) An employee shall not be permitted to stand and work on the top 3 rungs of a single or extension ladder unless there are members of the structure that provide a firm handhold or the employee is protected by a personal fall protection system in accordance Article 24 of the Construction Safety Orders, Article 36 of the High Voltage Electrical Safety Orders, Article 12 of the General Industry Safety Orders, or Article 1 of the Telecommunication Safety Orders.

(E) Employees shall not stand on the topcap or the step below the topcap of a step ladder.

(F) Cross-bracing on the rear section of step ladders shall not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.

(G) Ladders shall not be moved, shifted, or extended while occupied, unless the ladder is designed and recommended for this purpose by the manufacturer.

~~(16) On two-section extension ladders the minimum overlap for the two sections in use shall be as follows:-~~

<u>Size of Ladder</u>	<u>Overlap</u>
<u>(Feet)</u>	<u>(Feet)</u>
<u>Up to and including 36.....</u>	<u>3</u>
<u>Over 36 up to and including 48.....</u>	<u>4</u>
<u>Over 48 up to and including 60.....</u>	<u>5</u>

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Prohibited Uses.

(A) Ladders shall not be used as a brace, skid, guy or gin pole, gang-way, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.

(B) Planks shall not be used on the top step or topcap of step ladders.

(C) Step ladders shall not be used as single ladders or in the partially closed position.

(D) Ladders that exceed the following maximum lengths shall not be used:

<u>Ladder Type</u>	<u>Maximum Length (Feet)</u>
<u>Step ladder</u>	<u>20</u>
<u>Two-section extension ladder (wood)</u>	<u>60</u>
<u>Two-section extension ladder (metal or reinforced plastic)</u>	<u>72 48</u>
<u>Three-section extension ladder (metal)</u>	<u>60</u>
<u>Two-section extension ladder (reinforced plastic)</u>	<u>72</u>
<u>Trestle ladder</u>	<u>20</u>
<u>Extension trestle ladder base section</u>	<u>20</u>
<u>Extension trestle ladder extension section</u>	<u>20</u>
<u>Painter's step ladder</u>	<u>12</u>
<u>Mason's ladder</u>	<u>40</u>
<u>Cleat ladder</u>	<u>30</u>
<u>Trolley ladder or side-rolling ladder</u>	<u>20</u>
<u>Single ladder</u>	<u>30</u>

(E) Two section extension ladders shall not be used when the overlap between the sections is less than the following minimum overlap:

<u>Ladder Size (Feet)</u>	<u>Minimum Overlap (Inches)</u>
<u>Up to and including 32</u>	<u>34 36</u>
<u>Over 32, up to and including 36</u>	<u>46</u>
<u>Over 36, up to and including 48</u>	<u>58</u>
<u>Over 48, up to and including 60</u>	<u>70</u>

(17) Portable rung ladders with reinforced rails shall be used only with the metal reinforcement on the under side.

(18) ~~No ladder shall be used to gain access to a roof unless the top of the ladder extends at least 3 feet above the point of support at eave, gutter, or roof line.~~

Electrical Hazards. Non-conductive ladders shall be used in locations where the ladder or user may contact unprotected energized electrical conductors or equipment. Conductive ladders shall be legibly marked with signs reading "CAUTION--Do Not Use Around Electrical Equipment," or equivalent wording.

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NOTE: Additional requirements for working in proximity to energized electrical equipment can be found in Article 37 of the Electrical Safety Orders.

~~(19) The employer shall equip all portable rung ladders with non-slip bases when there is a hazard of slipping. Non-slip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used upon oily metal, concrete, or slippery surfaces.~~

~~**Transporting. Ladders transported on motor vehicles shall be properly supported and secured to prevent falling.**~~

~~(20) Cross-bracing on the rear section of stepladders shall not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.~~

The area around the top and bottom of a ladder shall be kept clear.

~~(f) Employee Training. Before an employee uses a ladder, the employee and the employee's supervisor shall be provided training in the safe use of ladders, unless the employer can demonstrate that the employee is already trained in ladder safety as required by this subsection. Supervisors of employees who routinely use ladders shall also be provided ladder safety training, unless the employer can demonstrate that the supervisor is already trained in ladder safety as required by this subsection.~~ The training may be provided as part of the employer's Injury and Illness Prevention Program required by Section 3203. The training shall address the following topics, unless the employer can demonstrate a topic is not applicable to the safe use of ladders in the employer's workplace.

(1) Importance of using ladders safely, including: frequency and severity of injuries related to falls from ladders.

(2) Selection, including: types of ladders, proper length, maximum working loads, and electrical hazards.

(3) Maintenance, inspection, and removal of damaged ladders from service.

(4) Erecting ladders, including: footing support, top support, securing, and angle of inclination.

(5) Climbing and working on ladders, including: user's position and points of contact with the ladder.

(6) Factors contributing to falls, including: haste, sudden movement, lack of attention, footwear, and user's physical condition.

(7) Prohibited uses, including: uses other than designed, climbing on cross bracing, maximum lengths, and minimum overlap of extension ladder sections.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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§3279. Portable Metal Ladders.

Safety requirements for portable metal ladders placed in service after April 18, 1999, shall meet the requirements of ANSI A14.2-1990 or ANSI A14.10-2000, which are hereby incorporated by reference. Safety requirements for portable metal ladders placed in service on or before April 18, 1999, shall be based on the ANSI A14.2 provisions in effect at the time such ladders were placed in service.

(a) Scope. This section is intended to prescribe rules and requirements for the construction, care, and use of the common types of portable metal ladders, in order to insure safety under normal conditions of usage. It does not cover special-purpose ladders which do not meet the general requirements of this code.

(b) Definitions. For definitions of terms associated with metal ladders, see Section 3278(b).

(c) Requirements.

(1) General. Specific design and construction requirements are not a part of this section because of the wide variety of metals and design possibilities. However, the design shall be such as to produce a ladder without structural defects or accident hazards such as sharp edges, burrs, etc. The metal selected shall be of sufficient strength to meet the test requirements, and shall be protected against corrosion unless inherently corrosion-resistant.

(A) Rung Spacing. The spacing of rungs or steps shall be on 12-inch centers.

(B) Rungs and Steps. Rungs and steps shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize the possibility of slipping.

(2) General Specifications--Straight and Extension Ladders.

(A) Ladder Width. The minimum width between side rails of a straight ladder or any section of an extension ladder shall be 12 inches.

(B) Ladder Length. The length of single ladders or individual sections of ladders shall not exceed 30 feet. Two section ladders shall not exceed 48 feet in length and over two section ladders shall not exceed 60 feet in length.

(C) Overlap. Based on the nominal length of the ladder, each section of a multi-section ladder shall overlap the adjacent section by at least the number of feet stated in the following:

<i>Nominal Length of Ladder (Feet)</i>			<i>Overlap (Feet)</i>
Up to and including 36	3
Over 36, up to and including 48	4
Over 48, up to 60	5

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~~(D) Extension ladders shall be equipped with positive stops which will insure the overlaps specified in the table above.~~

~~(3) General Specifications--Step Ladders.~~

~~(A) Length. The length of a step ladder is measured by the length of the front rail. Step ladders shall not exceed 20 feet in length.~~

~~(B) Feet. The bottoms of the four rails are to be supplied with insulating nonslip material for the safety of the user.~~

~~(C) Spreaders. A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in the open position shall be a component of each step ladder. The spreader shall have all sharp points or edges covered or removed to protect the user.~~

~~(4) General Specifications Trestles and Extension Trestle Ladders.~~

~~(A) Length. Trestle ladders or extension sections or base sections of extension trestle ladders shall be not more than 20 feet in length.~~

~~(5) General Specifications Platform Ladders. The length of a platform ladder shall not exceed 20 feet. The length of a platform ladder shall be measured along the front rail from the floor to the platform.~~

~~(d) Care, Use and Maintenance of Ladders.~~

~~(1) General. Every employer using ladders shall enforce a maintenance program which includes the appropriate requirements listed below.~~

~~(2) Maintenance. Ladders shall be maintained in good usable condition at all times. Hardware fittings and accessories shall be checked prior to use and kept in good working condition.~~

~~(3) Deteriorating Agents. When ladders are to be subjected to deteriorating agents, a protective coating shall be applied to the equipment.~~

~~(4) Oil and Grease. Equipment shall be cleaned of oil, grease, or slippery materials.~~

~~(5) Damaged Ladders. Ladders having defects are to be marked and taken out of service.~~

~~(6) Loading. Portable ladders are designed as a one-man working ladder based on a 200-pound load.~~

~~(7) Footing Support. The ladder base section shall be placed with a secure footing. Safety shoes of good substantial design shall be installed on all ladders.~~

~~(8) Top Support. The top of the ladder must be placed with the two rails supported, unless equipped with a single support attachment.~~

~~(9) Fastening Together. Ladders must not be tied or fastened together to provide longer sections. They must be equipped with the hardware fittings necessary if the manufacturer endorses extended uses.~~

~~(10) Improper Use.~~

~~(A) Ladders shall not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.~~

~~(B) Cross bracing on the rear section of stepladders shall not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.~~

~~(11) Electrical Hazards. Portable metal ladders shall not be used in the vicinity of electrical circuits in places where they may come in contact with them. Portable metal ladders shall be~~

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~~legibly marked with signs reading "CAUTION--Do Not Use Around Electrical Equipment," or equivalent wording.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

§3280. Portable Reinforced Plastic Ladders.

~~Safety requirements for portable reinforced plastic ladders placed in service after April 18, 1999, shall meet the requirements of ANSI A14.5-1992 or ANSI A14.10-2000, which are hereby incorporated by reference. Safety requirements for portable reinforced plastic ladders placed in service on or before April 18, 1999, shall be based on the ANSI A14.5 provisions in effect at the time such ladders were placed in service.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

* * *

§3287. Ladders.

* * *

(b) Specifications.

(1) ~~Wood~~ Portable ladders shall comply with Section 3278 ~~3276, Portable Wood Ladders of the General Industry Safety Orders and they shall not be painted with other than a transparent material.~~

EXCEPTION: Refer to Section 3287(a)(1) for maximum length.

(2) ~~Metal ladders shall meet the requirements of Section 3279, Portable Metal Ladders of the General Industry Safety Order.~~

EXCEPTION: ~~Refer to Section 3287(a)(1) for maximum length.~~

(3) ~~Plastic reinforced ladders shall meet the requirements of Section 3280 of the General Industry Safety Orders.~~

(4) (2) All ladders shall be equipped with nonslip bases suitable to the bearing surface. Middle and top sections shall not be used as bottom sections unless the user equips them with nonslip bases.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

* * *

§3413. Ladders.

(a) All portable ladders shall be at least Type 1 industrial heavy-duty ladders, Type 1A industrial extra heavy-duty ladders or Type 1AA special duty ladders as referred to in subsection (c) of this section, and shall be designed and constructed in accordance with Sections ~~3278 and 3279~~ 3276(c) of the General Industry Safety Orders.

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NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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§3458.1. Ladders Attached to Date Palms.

* * *

(b) Use of date palm ladders shall be in accordance with the requirements of Section ~~3276~~ 3278 of these Safety Orders.

* * *

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Summary and Responses to Oral and Written Comments

SUMMARY AND RESPONSES TO ORAL AND WRITTEN COMMENTS

Mr. Ken Nishiyama Atha, Regional Administrator, Region IX, OSHA, U.S. Department of Labor, by letter dated December 14, 2009.

KNA1: Mr. Atha stated that Section 3276(e)(16)(D) would allow two-section metal or reinforced plastic extension ladders to be a maximum length of 72 feet. This provision would not be as effective as the federal standard, 29CFR 1910.26(a)(2)(ii), which does not allow two-section extension ladders of any type to exceed 48 feet in length.

Response: Proposed Section 3276(e)(16)(D) would allow two-section metal or reinforced plastic extension ladders to be a maximum length of 72 feet. It would also allow two-section wood extension ladders to be a maximum length of 60 feet, which is the same length permitted by the existing standard for wood ladders. When amending Section 3276(e)(16)(D), the intent was to specify a maximum length for two-section extension ladders consistent with the requirements in the existing Title 8 ladder standards and the federal ladder standards; and rely on the applicable 2007ANSI A14 ladder standards for guidance when there was no existing State or federal specification.

Federal Section 1910.26 only applies to portable metal ladders. Section 1910.26(a)(2)(ii) provides that two-section metal extension ladders shall not exceed 48 feet in length, and over two-section metal extension ladders shall not exceed 60 feet in length. Federal Section 1910.25 only applies to portable wood ladders. Section 1910.25(a)(3)(iii) provides that two-section wood extension ladders longer than 60 feet shall not be supplied. There is no federal requirement regarding the maximum length of two-section reinforced plastic ladders used in general industry. Federal Section 1926.1053 pertains to ladders used in the construction industry, including job-made ladders. Section 1926.1053 does not specify the maximum length of two-section extension ladders; however, it does provide that ladders built and constructed in conformance with the applicable provisions of ANSI A14.1-1982, ANSI A14.2-1982, ANSI A14.5-1982 will be deemed to meet the load test requirements specified in Section 1926.1053. The referenced ANSI ladder standards allow two-section portable wood, metal, or plastic extension ladders up to a maximum length of 60 feet; and three-section metal or plastic ladders up to 72 feet.

It is likely that erecting and working on a 48 foot two-section metal ladder would present less risk of injury than would a 60 foot ladder, and erecting and working on a 60 foot three-section ladder would present less risk than would a 72 foot ladder; therefore, to be at least as effective as (ALAEA) the federal standard, the Board modified the proposal to replace the proposed length limit for two-section metal extension ladders with a requirement that two-section metal ladders shall not be longer than 48 feet and three-section metal extension ladders shall not be longer than 60 feet.

KNA2: Mr. Atha stated that Section 3276(e)(16)(E), which proposes two-section extension ladders up to and including 32 feet have a minimum overlap of 34 inches, is not ALAEA federal

standards 29CFR 1910.25(d)(2)(xiii) and 29CFR 1910.26(a)(2)(iii) which require a minimum overlap of 36 inches for all ladders up to and including 36 feet.

Response: Currently the State and federal requirements regarding the minimum overlap for two-section metal or plastic extension ladders are identical. The proposed overlap requirements are identical to those in the 2007 ANSI A14 standards for wood, metal, and plastic ladders. The proposal would increase the required overlap by 10 inches for all two-section extension ladders longer than 32 feet, up to 60 feet. However, the proposal would lessen the required overlap by 2 inches for ladders 32 feet or less. Therefore, to be ALAEA the federal standards, the Board modified the proposal to require an overlap of 36 inches for ladders up to and including 32 feet. The Board thanks Mr. Atha for his comments.

Ms. Elizabeth Treanor, Director, Phylmar Regulatory Roundtable, by letter dated December 10, 2009.

ET1: Ms. Treanor expressed concern about the incorporation by reference of standards developed by outside organizations into Title 8; in this case, specifically, ANSI/ALI 14.2-2007. She expressed the following concerns regarding the incorporation of consensus standards by reference: 1) the standards are expensive and not available in the public domain, 2) the standards frequently reference other standards which reference other standards into virtually an endless loop, requiring employers to find all the referenced standards, and 3) many of the standards have since been updated and may be difficult to obtain or are no longer available. Ms. Treanor stated the incorporation by reference may be less of a concern with ladders, but the practice is a public policy concern.

Response: Amended Section 3276(c), Design and Construction, would require that all portable ladders, except job-made cleat ladders and special purpose ladders, meet the design and construction requirements of one of the ANSI portable ladder standards, ANSI A14.1, ANSI A14.2, ANSI A14.5, or ANSI A14.10, which apply to wood, metal, reinforced plastic, and special duty ladders, respectively. The proposal would also incorporate the most recent version of the ANSI standards by reference. The existing general industry portable ladder standards for wood, metal, and reinforced plastic ladders already incorporate the ANSI ladder standards by reference and provide that the safety requirements for each of these types of ladders meet the requirements of the applicable ANSI standard. The proposal would narrow the scope of this provision by clarifying that the only requirements in the ANSI standards that portable ladders must meet are the ANSI design and construction requirements. Purchasing a ladder with an ANSI label will ensure that the ladder complies with the design and construction requirements of the referenced ANSI standards as required by amended Section 3276(c); therefore, the proposal would not place an unreasonable burden on employers to purchase or find the referenced ANSI standards. The Board is not aware of any reliable alternative to incorporation of the ANSI standards by reference which would ensure that the ladder selected for use will support its intended load; therefore, the Board declines to modify the proposed incorporation of the ANSI standards by reference.

ET2: Ms. Treanor stated that requiring ladder inspections before each shift is excessive, unreasonably burdensome and will not improve workplace safety, and the necessity of such a requirement has not been established for general industry. She believes the requirement will have a particularly adverse impact on large manufacturers who may use dozens of portable ladders in factory settings, not just those in construction-related trades. For example, if an employer has three shifts a day and over 200 ladders, it would require over 600 inspections per day, and over 3,000 per week. She believes that this can be resolved by having separate requirements for construction and general industry. She stated that ladders do not need to be inspected as frequently in general industry because in general industry ladders are not typically used on uneven ground, are not in heavy use, and are typically stacked carefully in the workplace. She recommended that the Board either require “periodic inspections” in general industry, as required by Federal OSHA, or include language such as “inspected prior to each day’s use”. She requested that the Board require periodic inspections identical to the federal requirement.

Response: It is reasonable to inspect ladders frequently where they are subject to constant use and heavy loads, and less frequently where they are only occasionally used for light loads. To provide employers with the flexibility to establish the frequency of ladder inspection based on how ladders are used in their particular work place, the Board modified proposed Section 3276(e)(2) to replace “prior to the start of the shift” with “periodically”, as requested by Ms. Treanor. The Board believes that a requirement for periodic inspection along with proposed new subsection (f), Employee Training, which requires that employees be provided training on the maintenance, inspection, and removal of damaged ladders from service, will reasonably ensure that damaged ladders are not used.

ET3: Ms. Treanor stated that although the regulation does not specifically require documentation of each ladder inspection, documentation is necessary because there is no other way for an employer to demonstrate compliance with the requirement. She stated that the cost of performing and documenting ladder inspections would create a statewide adverse economic impact directly affecting business, and suggested that this could be resolved by having separate requirements for general industry and construction.

Response: Ms. Treanor is correct that the proposal does not specifically require documentation of each ladder inspection. There are numerous construction industry and general industry standards that require specific equipment, such as slings, hooks, scaffold lumber, suspension wire ropes, body belts, lanyards, controlled descent apparatus, respirators, industrial trucks, and jobsite vehicles, be inspected before each use or prior to each day’s use. These standards are all silent as to whether the inspections must be documented. In response to Comment #2 from Ms. Treanor, the Board proposes to modify amended Section 3276(e)(2) to replace “prior to the start of the shift” with “periodically”. Further modifications to the proposal to separate the requirements for general industry from those for construction as suggested by Ms. Treanor would not resolve her concerns regarding documentation of ladder inspections because any proposed general industry ladder standard must be ALAEA the federal standard for portable wood and metal ladders used in general industry which requires that ladders be inspected frequently and after they tip over. Section 3203(a)(4) provides that employers implement procedures for identifying and evaluating work place hazards, including scheduled periodic inspections to

identify unsafe conditions and work practices. Section 3203(b)(1) provides that employers keep a record of scheduled and periodic inspections required by subsection (a)(4), including person(s) conducting the inspection, the unsafe conditions and work practices that have been identified and action taken to correct the identified unsafe conditions and work practices. The proposal would not create a new obligation on the employer to document ladder inspections; therefore, the Board believes it is not necessary to modify the proposal to specifically address this concern.

ET4: Ms. Treanor stated that the term “competent person,” as defined in Section 1504, is typically more of a supervisory person and a person with knowledge to perform excavation, asbestos, cadmium and other operations requiring a higher level of expertise than is required for performing ladder inspections. For example, in Section 1541(c), “Structural ramps that are used solely by employees as a means of access or egress from excavations shall be designed by a competent person.” Whereas, in Section 1541(b)(1)(c), “Only qualified persons shall perform subsurface installation locating activities, and all such activities shall be performed in accordance with ...”. She stated that the first example sounds like an engineer and the second example sounds like a trained employee. She believes that the term “qualified person” is sufficient for conducting ladder inspections because qualified persons are able to identify hazards relative to the procedures they are to follow for a specific job task. She noted that Section 1504 defines “Qualified Person, Attendant or Operator as a person designated by the employer who by reason of training, experience or instruction has demonstrated the ability to safely perform all assigned duties and, when required, is properly licensed in accordance with federal, state, or local laws and regulations.” She recommended that the term “competent person” be replaced with “qualified person” as this will provide clarity regarding who may inspect the ladders.

Response: Section 3207, which defines terms for general use in the standards contained in the General Industry Safety Orders (GISO), defines “qualified person, attendant or operator” as a person designated by the employer who by reason of his training and experience has demonstrated the ability to safely perform his duties and, where required, is properly licensed in accordance with federal, state, or local laws and regulations. Section 3207 does not define “competent person,” nor does Article 4 of the GISO, which contains the portable ladder standards. Therefore, for clarity and consistency with the GISO, the Board modified proposed Section 3276(e)(2) to replace “competent person” with “qualified person”, as requested by Ms. Treanor.

ET5: Ms. Treanor noted that Section 3276(f) reads: “Employee Training. Before an employee uses a ladder, the employee and the employee’s supervisor shall be provided training in the safe use of ladders. The training may be provided as part of the employer’s Injury and Illness Prevention Program required by Section 3203.” Although this requirement exceeds the federal standard, she agrees that training is a more effective way to deal with the inspection of ladders. However, she reasons that because ladders are commonly used, many people already know how to use them safely, and requiring training for people who do not need it would be redundant and would not improve workplace safety. Therefore, she recommended that the training provisions include an exemption for employees and supervisors with previous experience, to add a third sentence, as follows: “For employees and supervisors with previous ladder training and experience, no additional training is necessary.”

Response: It may not be necessary to repeat training for some employees who already have ladder training and experience; however, it is not safe to assume that every employee who has had ladder training and experience prior to employment knows how to safely use ladders to perform tasks in their new place of employment. The ladders, the tasks, and/or the conditions of use may be significantly different from the employee's prior experience and their previous training may not be adequate for the new workplace. The Board modified the proposal to provide an exception to the employee training requirement where the employer can demonstrate that the employee and supervisor are already trained in ladder safety as required by Section 3276(f). The Board believes the exemption addresses Ms. Treanor's concerns regarding unnecessary, redundant ladder training. The Board thanks Ms. Treanor for her comments.

Ms. Judith Freyman, Vice President, WOSH Operations, ORC Worldwide, by letter received December 14, 2009, and oral comments received at the December 17, 2009, Public Hearing.

JF1: Ms. Freyman stated that proposed Section 3276(e)(2) requires a ladder be inspected by a competent person for visible defects prior to the start of the shift and after any occurrence that could affect its use. Also, while there is no specific requirement to document such inspections, it arguably is required pursuant to Section 3203(b). Ms. Freyman believes documentation would be burdensome and ineffective; therefore, there should be specific language in this provision that states that no documentation is required.

Response: See response to comment ET3.

JF2: Ms. Freyman stated that, in regards to the frequency of the required ladder inspection, the reference to specific shifts is confusing. In today's 24/7 workplace, there may be no specific shifts, just employees reporting to work at different times or on staggered schedules. She suggests a more flexible approach that allows employers to conduct inspections periodically, with the appropriate frequency determined by workplace conditions. She therefore requested deletion of "prior to the start of the shift" and substitution of "periodically" before the phrase "and after any occurrence that could affect their safe use."

Response: See response to comment ET2.

JF3: Ms. Freyman stated that the ANSI standard, A14.1-2007, incorporated by reference in the proposed rules, includes step stools; however, the minutes of the advisory committee meeting provide support for the exclusion of step stools. She stated that, in addition to the reasons stated at the advisory committee meeting, step stools are less hazardous than portable ladders and should not require the same frequency of inspection as portable ladders. To avoid confusion on this important point, Ms. Freyman requested that step stools be specifically excluded from this rule.

Response: The consensus of the advisory committee was that step stools should not be included in the proposed portable ladder standard and it was not intended that step stools be included in

the proposal. The ANSI standard for portable wood ladders, ANSI A14.1-2007, which proposed Section 3276 incorporates by reference, states that the ANSI standard does not cover step stools (furniture type), except ladder-type step stools. The ANSI standard also notes that while ladder type stools are covered by A14.1, it is recognized that a step stool standard is under development. When the step stool standard is approved, A14.1 will no longer cover ladder type step stools. The new standard will be A14.11. The Board agrees with Ms. Freyman that the proposal creates confusion regarding its application to step stools; however, step stools cannot be completely exempted from the standard because the federal standard governing ladders used in construction addresses step stools. Section 1926.1053(a)(3)(ii) provides that rungs, cleats, and steps of step stools shall be not less than 8 inches (20 cm) apart, nor more than 12 inches (31 cm) apart, as measured between center lines of the rungs, cleats, and steps. To be ALAEA the federal standard, the Board modified the proposal to incorporate the federal requirements for the design and construction of step ladders into proposed Section 3276(c)(5). Proposed 3276(c)(5) is consistent with section 6.5 of ANSI A14.1-2007, which provides that the steps of ladder type step stools shall be uniformly spaced at intervals of 8 to 12 inches. In response to Ms. Freyman's comment, the Board also modified proposed Section 3276(a) to clarify that Section 3276 does not apply to step stools except for the design and construction requirements for ladder type step stools in modified subsection (c)(5). Lastly, the Board modified the proposal to add a definition for ladder type step stool in Section 3276(b). The Board believes that these modifications to the proposal will provide the clarity that Ms. Freyman requested. The Board thanks Ms. Freyman for her comments.

Mr. Bruce Wick, VP Risk Management, California Professional Association of Specialty Contractors (CALPASC), by email received on December 15, 2009, and oral comment received at the December 17, 2009 Public Hearing.

BW: Mr. Wick stated that the proposed revision to the portable ladder standards will clear up a great deal of confusion over which safety order applies and to what types of ladders. He supports the proposed amendments but stated that Section 3276(e)(2) needs to more clearly state the requirements and expectations regarding ladder inspection. Mr. Wick stated that the term "competent person" indicates that it is someone who has the authority to provide prompt corrective action to eliminate a hazard if a ladder has to be pulled out of service or replaced due to a defect that would compromise the safety of that ladder. He stated that the use of the phrase "competent person" implies that the employee using the ladder is not competent to make his own decision about the safety of the ladder he is using. He asked that the final statement of reasons or the hearing record make it very clear that an employee who is trained to use a ladder is also trained to identify a defective ladder and have the authority to remove it from service under the employer's supervision.

Response: See response to comments ET2 and ET4. The Board believes that the modified ladder inspection and employee training provisions of the proposal are sufficiently clear. The Board thanks Mr. Wick for his comments.

Mr. Bill Taylor, South Chapter President, Public Agency Safety Management Association (PASMA), by letter dated December 14, 2009, and oral comments received at the December 17, 2009, Public Hearing.

BT1: Mr. Taylor stated that their members employ firefighters who use portable ladders and that many of these fire departments conduct a weekly inspection of their portable ladders. Since many ladders are not used on a daily basis, it does not make sense to require daily inspections. He stated that many of these ladders are extremely heavy and to pull them on and off a fire truck for inspection presents an ergonomic hazard. He recommended deleting the proposed language in Section 3276(e)(2) and retaining the current language, which would still require fire personnel to inspect ladders on a regular basis. He believes that requiring ladders to be inspected regularly is a more reasonable requirement, which addresses the actual hazards in the fire service.

Response: See response to comment ET2.

BT2: Mr. Taylor stated that firefighters are trained to place the tip of a ladder below or at the same height as a window ledge so that they do not occlude the opening, thus blocking access or egress during a rescue scenario. He stated that Section 3276(e)(11) reads: "Access to Landings. When portable ladders are used for access to an upper landing surface, the side rails shall extend not less than 36 inches above the upper landing surface to which the ladder is used to gain access; or when such an extension is not possible, then the ladder shall be secured at its top to a rigid support that will not deflect, and a grasping device, such as a grab rail, shall be provided to assist employees in mounting and dismounting the ladder. In no case shall the extension be such that ladder deflection under a load would, by itself, cause the ladder to slip off its support." Mr. Taylor stated that this requirement may create an increased risk of death or injury to the firefighter and the person being rescued. He recommended that an exception be added to include the following language: "Exception: Accessing windows or other landings by fire and emergency personnel during rescue situations and while training for these incidents."

Response: Mr. Taylor's proposal would exempt rescue and rescue training operations from the requirement that a ladder shall extend 36 inches above a landing, unless the ladder is secured and a grasping device is provided. For some rescue operations, such as accessing a landing through a window opening, it may not be practical to extend a ladder 36 inches above a landing or secure a ladder or provide a grasping device; however, there are also many instances where it is practical to extend a ladder 36 inches above a landing, such as accessing a roof. Therefore, the Board modified the proposal to provide an exemption from subsection (e)(11) during emergency rescue and emergency rescue training operations where it is not practical to extend a ladder 36 inches above the landing surface. The Board thanks Mr. Taylor for his comments.

Mr. Patrick Singh, Director, Safety and Loss Control, Safeway, Inc., by written and oral comments received at the December 17, 2009, Public Hearing.

PS1: Mr. Singh stated that proposed Section 3276(e)(2) requires an inspection by a competent person for visible defects prior to the start of the shift, but the regulation is silent on whether the employer must document the inspection to demonstrate compliance. He stated that

documentation and retention will be burdensome without any corresponding increase in workplace safety or the effectiveness of the inspection. Mr. Singh requested at the very least the addition of language that specifically stated no documentation is required.

Response: See response to comment ET3.

PS2: Mr. Singh stated that the requirement for ladders to be inspected at the beginning of each shift is confusing and burdensome as multiple and staggered shifts exist in some locations and industry, such as the retail grocery industry where employees may be scheduled in at 10 pm, 11 pm, midnight, 4 am and 5 am to stock shelves using step stools. In this scenario, a store with 5 step stools and 8 employees could generate 40 inspections for the night and morning stocking shifts alone. He stated that a more practical inspection schedule such as “periodic” would be better and more effective. He noted that the federal ladder standard, 1910.26 requires ladders to be in good usable condition at all times and inspections are required under limited conditions, such as when a ladder tips over.

Response: See response to comment ET2.

PS3: Mr. Singh stated that the proposal incorporates ANSI standard A14.1-2007 by reference, which includes step stools (ANSI defines step stools to be ladder type 32 inches or shorter) and provides specific guidelines for their design and marking. It follows that step stools will be treated like ladders even though they do not pose similar hazards. He stated the ANSI approved stepstools are available and used by some employers, but others will be forced to purchase them at a higher cost than furniture type step stools available at your local hardware store, which will be burdensome and will not increase workplace safety. He requested that step stools be excluded from the proposed regulations, which is supported by discussions outlined in the advisory committee minutes dated December 3, 2008.

Response: See response to comment JF3.

PS4: Mr. Singh stated that incorporating ANSI standards by reference makes it difficult for a small business owner to determine what is required. He requested that, in lieu of incorporating ANSI standards, language similar to the federal Section 1910.26 should be considered for adoption.

Response: See response to comment ET1.

PS5: Mr. Singh stated that the proposed language creates a burden for businesses that operate in multiple states as it is substantially different from federal regulations for general industry; thus, a company operating in Nevada and California or Oregon and California would have to comply with two different standards for ladders and stepstools.

Response: Currently, employers in general industry with facilities in California and in states under federal OSHA jurisdiction must comply with separate federal standards for wood and metal ladders and separate State standards for wood, metal, and plastic reinforced ladders. The

Board convened an advisory committee to consider a proposal to consolidate the State portable ladder standards for wood, metal, and plastic ladders used in general industry into one comprehensive standard. That advisory committee supported consolidating the standards. The proposed consolidation would increase protection for employees and reduce the employer's current burden of complying with three separate standards when, for the most part, the hazards and safe practices related to the use ladders is the same for wood, metal, or plastic ladders.

The Federal OSHA system allows "state plan" jurisdictions, such as California to adopt standards different from Federal OSHA standards, so long as the State standards are ALAFA the corresponding Federal standards. California has determined to utilize this system to adopt portable ladder standards suited to California needs, as those needs were perceived via such mechanisms as the advisory committee convened regarding this topic. Therefore, the Board declines to modify the proposal. The Board thanks Mr. Singh for his comments.

Mr. Michael Kopulsky, President, Front Line Sales, Inc., by written and oral comments received at the December 17, 2009, Public Hearing.

MK1: Mr. Kopulski stated that Section 3276(e)(2) requires that ladders be inspected by a competent person prior to the start of each shift. He asks if the inspection has to be documented and whether a definition of "competent person" will be provided.

Response: See responses to comments ET3 and ET4.

MK2: Mr. Kopulski stated that ANSI and OSHA have already acknowledged that a step stool, defined as "less than 32 inches", does not present the same degree of risk as a ladder which is used to convey people through a greater distance or height; it is simply used to help a shorter segment of our population to reach a height that others might be able to reach without the use of equipment, as well as, being a safer way to gain a step without using furniture; therefore, step stools should not have the same recording requirements as conventional ladders.

Response: See response to comment JF3.

Mr. Tim Gotto, Regional Senior Safety Manager, West Region, Time Warner Cable, by written comments received at the December 17, 2009, Public Hearing.

TG1: Mr. Gotto stated that ladder should be inspected prior to use by a "qualified person" and that no documentation of the inspection should be required.

Response: See responses to comments ET3 and ET4.

TG2: Mr. Gotto stated that the replacement of ladder parts should be accomplished by a "competent person."

Response: Proposed Section 3276 does not specify the qualifications of the person who replaces ladder parts. Proposed Section 3276(e)(1) provides that portable wood ladders be maintained in

good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play. Proposed Section 3276(e)(3) states, "Ladders that have developed defects shall be withdrawn from service for repair or destruction; and tagged or marked as "Dangerous, Do Not Use" or with similar language. Ladders with broken or missing steps, rungs, cleats, safety feet, side rails, or other defects shall not be used." In addition, portable ladders must meet the design and construction requirements of proposed Section 3276(c). The Board believes that these provisions establish effective criteria regarding ladder repair; and therefore, it is not necessary to modify the proposal to provide that ladder parts should be replaced by a competent person.

TG3: Mr. Gotto stated that proposed Section 3276(e)(15)(A) should clarify that telecommunication workers can use a body belt with safety lanyard to secure a ladder to a pole or strand.

Response: Section 8608 of the Telecommunications Safety Orders pertains to poles towers and ladders. Section 8608(j) states the following:

"When a ladder is supported by an aerial strand, and ladder hooks or other supports are not being used, the ladder shall be extended at least 2 feet above the strand and shall be secured to it (e.g. lashed or held by a safety strap around the strand and ladder side rail). When a ladder is supported by a pole, it shall be securely lashed to the pole unless the ladder is specifically designed to prevent movement when used in this application."

Section 8608(j) specifically addresses the operation described by Mr. Gotto; therefore, for this specific operation the application of Section 8608(j) takes precedence over the application of Section 3276(e)(15)(A). Therefore, the Board declines to modify the proposal.

TG4: Mr. Gotto stated that proposed Section 3276(e)(15)(D) should allow telecommunication workers to transition to a pole with rungs by climbing through the top 3 rungs of an extension ladder.

Response: Since subsection (e)(15)(D) does not address climbing through the top three rungs of an extension ladder, it is assumed that Mr. Gotto is requesting an exemption from the provision that prohibits employees from standing on the top three rungs of a ladder without a firm hand hold or fall protection. He does not propose any alternative means for preventing an employee from falling that would be equivalent to providing a hand hold or fall protection. Since it has not been established to the Board's satisfaction that this proposed revision is necessary or safe, the Board declines to modify the proposal. The Board thanks Mr. Gotto for his comments.

Mr. John McCullough, Assistant Vice President, Wells Fargo of California Insurance Services, Inc., by letter received on November 25, 2009.

JM1: Mr. McCullough expressed his concern that the table in Section 3276(d)(2) lists Type II and Type III ladders without a note or strikethrough that they are not to be used in industrial settings; therefore, an employer could mistakenly conclude that they are acceptable. He stated

that an employer would have to know to go to GISO, Section 3413 to find out that only portable ladders at least Type I or higher can be used.

Response: Section 3276(d)(2) provides that ladders shall be used according to their duty classifications and provides a table listing the duty rating, ladder type, and working load for Type IAA, IA, I, II, and III ladders. Section 3413 pertains to ladders used for outdoor advertising structures. That section requires that all portable ladders used for outdoor advertising be rated Type I, IAA, or IAA. To address Mr. McCullough's concern, the Board modified proposed Section 3276(d)(4) to inform employers in the outdoor advertising industry that ladders used in connection with outdoor advertising structures shall be Type I, IAA, or IAA duty rated and shall be used in accordance with Section 3413.

JM2: Mr. McCullough expressed concern that new Section 3276(e)(2) would require that a company inspect all of their ladders on every shift in their entire facility, even in sections of the facility that would not be active each shift. The letter stated that this proposed change to a general industry section was made to ensure that it is at least as effective as a federal OSHA construction safety order; therefore, the change should be to the Construction Safety Orders – but change it to read as the federal construction standard reads – inspected by a competent person on a “periodic basis.”

Response: See response to comment ET2.

JM3: Mr. McCullough indicated that the applicability of the standard was unclear as to the height or number of steps which would be considered a portable ladder and thereby come under these proposed changes. He noted that one manufacturer of folding stands says they are manufactured to Type 1A rated ladders. He asked whether a step stool or folding stand which one manufacturer shows a vertical height of 28 ¼ inches with three steps, come under this standard.

Response: See response to comment JF3.

JM4: Mr. McCullough stated that most employers do not have easy access to ANSI standards; therefore, he requested that all referenced ANSI standards be included in any proposed standard or their references deleted.

Response: See response to comment ET1. The Board thanks Mr. McCollough for his comments.

Mr. Terry Thedell, Health and Safety Advisor, San Diego Gas and Electric, by letter dated November 30, 2009.

TT1: Mr. Thedell stated that he applauds the effort to consolidate similar standards between the construction and general industry ladder standards into one comprehensive ladder standard; however, his enthusiasm is tempered by the inclusion by reference of the ANSI/ALI 14.2-2007 standard that is not in the public domain and is expensive to obtain.

Response: See response to comment ET1.

TT2: Mr. Thedell stated that he agrees that the inspection of ladders is an important task; however, not all ladders are used each shift and suggests changing the wording to reflect that “ladders shall be inspected ... prior to use and after any occurrence that could affect their safe use.”

Response: See response to comment ET2.

TT3: Mr. Thedell recommended moving the ladder training requirements from the standard to a training specific appendix that provides the additional ladder safety training information such as frequency and severity of ladder incidents.

Response: The proposal would allow employers the flexibility to provide ladder safety training that is applicable to their work place. There are many excellent sources of ladder safety training information available free on the internet, including National Institute for Occupational Safety and Health (NIOSH) and OSHA publications. Incorporating the training provisions in the standard as proposed is consistent with the presentation of other Title 8 training requirements; therefore, the Board declines to modify the proposal as suggested.

TT4: Mr. Thedell stated that he agreed on the need to train employees in ladder safety that, in the normal course of their work, routinely use ladders; but, ladder safety training should only be required when practicable for incidental portable ladder users. He stated that requiring the full ladder safety training for administrative assistants, vice presidents, or directors would not be practicable when they use a ladder to simply remove a box from a shelf.

Response: The Board appreciates Mr. Thedell’s support for ladder training for employees who routinely use ladders; however the Board has reservations about providing ladder safety training for incidental ladder users only when practicable. The proposed modification lacks clarity, and there is evidence that incidental ladder use or use of ladders by administrative and management staff is a significant cause of injury. According to a NIOSH report, from 1980 to 1994 there were 8,102 workers killed by falls from elevation in the United States and the occupation of 513 (6.3%) of those workers was executive, administrative or managerial.¹ NIOSH reported that ladders accounted for 17% of fatal falls from elevation among the executive/administrative/manager occupational division. The Board believes it is necessary to provide training for all ladder users; however, the benefit of training the supervisors of employees who only use ladders occasionally is less clear. Therefore, the Board modified proposed Section 3276(f) to provide that supervisors need only be provided ladder safety training if the employees they supervise routinely use ladders. The Board thanks Mr. Thedell for his comments.

Mr. Larry Pena, Manger of Corporate Safety, Policy and Regulations, Southern California Edison, by written and oral comments received December 17, 2009, at the Public Hearing.

¹ Worker Death By Falls, A Summary of Surveillance Findings and Investigative Case Reports, Part 1, Fatal Falls From Elevators, NIOSH, Sept. 2000.

LP1: Mr. Pena stated that he supports the proposed amendments to the portable ladder standards; however, he recommended some modifications be made. In amended Section 3276(e)(2), he recommended that the term “competent person” be replaced by “qualified person,” as defined in Section 1504. He stated that this change is consistent with the training requirements in proposed subsection (f)(3), which references maintenance, inspection, and removal of damaged ladders from service. He stated that an employee who undergoes such training will be considered a “qualified person” by virtue of training, instruction and demonstrated ability.

Response: See response to comment ET4.

LP2: Mr. Pena stated that the frequency in the use of portable ladders varies in today’s industry; therefore, the language referencing inspection intervals should be changed to “prior to each days use”. He stated that this change is consistent with other regulations, such as Section 3421, General-Tree Work, subsection (e), “Prior to use, all equipment and safety devices shall be inspected ...”, and Section 3413, Ladders-Outdoor Advertising Structures, subsection (e) “All special purpose poster ladders shall be inspected for defects prior to use”, and Section 3667, Pole Climbers-Telecommunications, subsection (c), “Pole climbers shall be inspected as required in this section before each day’s use and ...” Mr. Pena stated that inspections prior to each day’s use will still provide the necessary employee safeguards without significant impact to employers.

Response: See response to comment ET2.

LP3: Mr. Pena stated that the provision in Section 3276(e)(19) that requires ladders be secured during transport falls outside the scope of the OSH Act and is too vague to enforce. He stated that if a ladder falls off a motor vehicle, it would require an inspection for defects as noted in proposed subsection (e)(2) which requires an inspection “after any occurrence that could affect their safe use”; therefore, he requested that “transportation” no longer be included in the new standard.

Response: Proposed subsection (e)(19) is not necessary because subsection (e)(1) adequately addresses ladder maintenance, and subsection (e)(2) requires that ladders be inspected for damage after any occurrence that could affect their safe use. In addition, Section 3704 provides that all loads shall be secured against dangerous displacement either by proper piling or other securing means. For the reasons stated above, the Board modified the proposal to delete proposed Section 3276(e)(19).

LP4: Mr. Pena stated that proposed Section 3276(e)(15)(G), which prohibits moving, shifting, or extending ladders while occupied, is identical to federal Section 1926.1053(b)(11) except the proposal adds the additional words, “unless the ladder is designed and recommended for this purpose by the manufacturer.” He requested that the term “recommended” be deleted as it implies some sort of individualized signed warranty document from the manufacturer – and manufacturers generally do not warrant their products for a particular use. He states that it is up to the user to make sound application of the seller’s product.

Response: Use of the term “recommended” is not intended to require an individually signed warranty document from the manufacturer. The use of the term “recommended” is consistent with other Title 8 standards that require employers to follow the manufacturer’s recommendations with regards to the use of a product. Striking the term “recommended” and leaving it up to the user to make a sound application of the product would not be as effective as the counterpart federal standard, which does not provide an exception to the prohibition of moving an occupied ladder. For the reasons stated above, the Board declines to modify the proposal.

LP5: Mr. Pena stated that Section 3276(f) requires training of the employee and supervisor before an employee uses a ladder. He stated that non-specialized ladder usage is common among the general adult population and the product is readily available to the public; therefore, he recommended that employees and supervisors with previous ladder training and experience be exempted from attending additional training.

Response: See response to comment ET5. The Board thanks Mr. Pena for his comments.

Mr. Willie Washington, Board Member, by oral comment received at the December 17, 2009, Public Hearing.

WW: Mr. Washington stated that the standard needs to be clarified so the employer will know exactly who is the correct person to inspect ladders, and whether or not the person using a ladder is competent to determine that ladder is safe to use.

Response: See response to comment ET4 and the comment from Mr. Wick.

Mr. Guy Prescott, Board Member, by oral comments received at the December 17, 2009, Public Hearing.

GP1: Mr. Prescott suggested that the proposal be modified to indicate that a ladder must meet the ANSI standard in effect at the time of manufacture rather than at the time of purchase; thus, if the ANSI standard is changed in the near future, the ladders currently available for purchase do not need to meet that new standard.

Response: The proposal requires that ladders comply with the national consensus standard incorporated by reference into the proposal, unless the ladder is already in service before the effective date of the proposal, in which case the ladder is to comply with the version of the national consensus standard in effect when the ladder was placed in service. This provision comports with the policies of the Office of Administrative Law, which, in effect, do not permit the Board to require compliance with versions of national consensus standards that do not yet exist. Thus, the Board declines to modify the proposal in the manner suggested by Mr. Prescott.

GP2: Mr. Prescott stated that he agreed with several of the comments regarding the use of the term “qualified person” as opposed to “competent person”, stating that under the definitions in

Title 8, “qualified person” is the appropriate term. He asked that the choice of the term “competent person” be addressed in the final statement of reasons.

Response: See response to comment ET4.

GP3: Mr. Prescott asked that any cost associated with having a platform or landing between separate ladders be identified in the final statement of reasons.

Response: Proposed Section 3276(e)(10), Access to Elevated Work Areas, provides that except when portable ladders are used to gain access to fixed ladders (such as those on utility towers, billboards, and other structures where the bottom of the fixed ladder is elevated to limit access), when two or more separate ladders are used to reach an elevated work area, the ladders shall be offset with a platform or landing between the ladders. This provision is substantively the same as the federal construction standard, Section 1926.1053(a)(10), which provides that except when portable ladders are used to gain access to fixed ladders (such as those on utility towers, billboards, and other structures where the bottom of the fixed ladder is elevated to limit access), when two or more separate ladders are used to reach an elevated work area, the ladders shall be offset with a platform or landing between the ladders. With respect to portable ladders used in the construction industry to access elevated work areas, the State ladder provisions must be ALAEA federal Section 1926.1053(a)(10); therefore, the proposed provision does not impose an additional cost on the construction industry. With respect to general industry, Section 3270(a) provides that every permanent elevated work location shall be accessed by means of either fixed ladders or permanent ramps or stairways; therefore, portable ladders cannot be used for this purpose. In general industry, a mobile ladder stand, scaffold tower, aerial device or elevating work platform is generally used when a temporary or mobile elevated work area is needed. Section 3622(f)(8) requires that climbing ladders on scaffolds be affixed or built into the scaffold and a landing platform provided every 30 feet; therefore, the proposed portable ladder standard would not apply to these climbing ladders. The cost to general industry to comply with proposed Section 3276(e)(10) is expected to be minor due to the limited application of the provision in general industry.

GP4: Mr. Prescott stated that subsection (e)(15)(A) references the Electrical Safety Orders (ESO) and the Telecommunications Safety Orders (TSO), and he stated that it does not make sense to refer to either of these safety orders when addressing fall protection.

Response: The most comprehensive fall protection requirements in Title 8 are in Article 24 of the CSO; however, there are fall protection provisions in the TSO and High Voltage ESO that specifically pertain to work on poles and towers, and in the GISO that pertain to tree trimming and date palm operations. Where fall protection is used to comply with Section 3276(e)(15)(A) or Section 3276(e)(11), the intent of the proposal is to require that fall protection be used in accordance with the fall protection provisions that apply to the specific industry and operation. The intent of referencing each of the specific Articles and Safety Orders is that the fall protection requirements that apply to a specific industry would have precedence over applicable fall protection requirements in the GISO if the requirements conflict. The Board agrees with Mr. Prescott that the proposal lacks clarity as to how the referenced Articles and Safety Orders would

apply to operations and conditions that are not specifically covered by one of the referenced Safety Orders. The Board modified proposed Section 3276(e)(11) EXCEPTION No. 1 to add the following clarifying text: “Operations or conditions not specifically covered by the fall protection provisions of Article 36 of the High-Voltage Electrical Safety Orders, Article 12 of the General Industry Safety Orders, or Article 1 of the Telecommunication Safety Orders shall comply with the fall protection provisions of Article 24 of the Construction Safety Orders.”

GP5: Mr. Prescott stated that the provision in subsection (e)(18) requiring signage for conductive ladders is already addressed in the ANSI standards, and having that provision in the proposal may be redundant.

Response: With respect to labeling, the provisions of proposed Section 3276(e)(18) are substantively the same as existing Section 3279(c)(11) which is proposed for deletion. The ANSI standard for portable metal ladders, ANSI 14.2-2007, does not cover all special purpose ladders. Also, the proposal provides that portable metal ladders be designed and constructed in accordance with the referenced ANSI standard. It does not specify that ladders must be labeled in accordance with the ANSI standard. For the reasons state above, the Board declines to remove the provision.

Dr. Jonathan Frisch, Board Member, by oral comments received at the December 17, 2009, Public Hearing.

JDF1: Dr. Frisch stated that if Class II or Class III ladders are not approved for use anywhere, they should be deleted from the reference table in Section 3276(d)(2).

Response: See response to comment JM1.

JDF2: Dr. Frisch suggested that the words “cleaned of” be replaced with “free of” in subsection (e)(4).

Response: Proposed Section 3276(e)(4) provides that ladders shall be cleaned of oil, grease, or slippery materials. The Board modified the proposal to replace “cleaned of” with “free of”, consistent with existing Section 3278(e)(6) and federal Section 1926.1053(b)(3).

JDF3: Dr. Frisch suggested that the term “deteriorating agent” be defined in the final statement of reasons.

Response: Proposed Section 3276(e)(5)(A) provides that when metal ladders are to be subjected to deteriorating agents, a protective coating shall be applied in accordance with the manufacturer’s guidelines. The proposed provision was modified and relocated to subsection (e)(1). The proposed modification provides that a metal ladder shall not be exposed to acid or alkali materials that are capable of corroding the ladder and reducing the ladder’s strength, unless the employer obtains and follows the recommendations of the ladder manufacturer or a qualified person regarding exposure to corrosive materials. The modification is consistent with ANSI

A14.2-2007. The proposed modification improves clarity by replacing the ambiguous term “deteriorating agent.”

Mr. Jack Kastorff, Board Member, by oral comments received at the December 17, 2009, Public Hearing.

JK1: Mr. Kastorff stated that there had been a lot of comments regarding the frequency of inspection, when Section 3203 already requires periodic inspections of the workplace. He stated that the frequency of those inspections is not specified; the employer establishes the frequency. He suggested that similar language could be used in the proposal.

Response: See response to comment ET2.

JK2: Mr. Kastorff suggested that step stools be exempted from the proposal.

Response: See response to comment JF3.

Mr. Steve Johnson, Safety Director, Associated Roofing Contractors of the Bay Area Counties (ARC-ABC), by oral comments received at the December 17, 2009, Public Hearing.

SJ1: Mr. Johnson agreed with Mr. Wick and Mr. Pena regarding the definition of a competent person.

Response: See response to comment ET4.

SJ2: Mr. Johnson stated that ladders are tools that roofers use every day, from estimating the job through completion. He expressed concern regarding the transportation of ladders, stating that there are frequent reports of ladders on the freeway, which is an issue for the California Highway Patrol (CHP). He stated that employers stress to their employees that ladders must be securely fastened to the truck before leaving the job site.

Response: See response to comment LP3.

SJ3: Mr. Johnson requested that the regulation be clarified regarding the use of sectioned ladders.

Response: See response to comment KNA1. The Board thanks Mr. Johnson for his comments.

Mr. Scott Harding, by oral comments received at the December 17, 2009, Public Hearing.

SH1: Mr. Harding stated that consolidating all of the ladder requirements in one section makes sense, and he expressed appreciation for the Board for doing that.

Response: The Board thanks Mr. Harding for his support.

SH2: Mr. Harding proposed that Section 3278(c), which indicates that all parts be free from sharp edges, splinters, irregularities, and defects which affect the ladder's structural integrity, and references Section 1676 regarding job-made ladders be modified to specify those items which might affect the safety of the ladder, such as fasteners, nails, screws, or any protrusion of any kind that may cause an injury or catch on clothing, tools, belts, harnesses or equipment and potentially cause slippage or falls during ascent or descent. He stated that if there is any kind of protrusion when one is climbing a ladder, it could cause a fall; that includes job-made ladders, portable ladders, and extension ladders.

Response: Proposed Section 3276(c) provides, in part, that portable ladders be constructed according to the applicable ANSI ladder standard or Section 1676, which pertains to job-made ladders. The ANSI ladder standards provide that ladders be manufactured free of sharp edges and burrs greater than 1/64 of an inch. Section 1676 provides that wood ladders be constructed free of sharp edges and splinters. It also prohibits the use of double headed nails. Proposed Section 3276(e)(1) provides that ladders be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached. In addition subsection (f)(6), employee training, provides that employees receive training on factors that contribute to falls. These provisions provide reasonable protection against falls due to snagging clothing or equipment on protrusions; therefore, the Board declines to modify the proposal to prohibit any kind of protrusion.

SH3: Mr. Harding stated that Section 3278(e)(3) requires frayed or badly damaged ropes to be replaced and ladders to be taken out of service if they are damaged or defective, although subsection (e)(1) already requires ladders to be maintained in good condition at all times. He stated that a more precise definition of "good" may be required, as that term may be interpreted differently by different employers. He stated that it is not enough for an employer to tell an employee that a particular ladder is not to be used because it is defective; if they are available and accessible, employees will use them, regardless of damage or defect. He suggested that destroying the ladder, rather than attaching a "Do Not Use" tag or sticker, might be a better way to take it out of service to prevent it from being used.

Response: Proposed Section 3276(e)(1) provides that ladders be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play. The provision provides examples of what is considered good condition; therefore a definition of the term "good condition" is not necessary. Proposed Section 3276(e)(3) provides that ladders which have developed defects shall be withdrawn from service for repair or destruction; and tagged or marked as "Dangerous, Do Not Use" or with similar language; ladders with broken or missing steps, rungs, cleats, safety feet, side rails, or other defects shall not be used. It is not necessary to destroy a damaged ladder if it is taken out of service, since it might be susceptible to proper repair.

SH4: Mr. Harding stated that Section 3276(e)(4) requires rungs to be kept free of grease and oil, and suggested that the definition of the term "slippery materials" be expanded to include dew,

mud, etc., rather than just oil and grease because ladders become slippery in cold, damp, foggy weather conditions as well.

Response: It would be impractical to prohibit the use of ladders in cold, damp, foggy weather or to require that ladders be cleaned of water (conditions that would fall within the suggested expanded definition of “slippery materials”). Therefore, the Board declines to modify the proposal. The Board thanks Mr. Harding for his comments.

Ms. Joan Gaut, California Teachers Association by oral comments received at the December 17, 2009, Public Hearing.

JG: Ms. Gaut asked the Board to remove step stools from the regulation.

Response: See response to comment JF3. The Board thanks Ms. Gaut for her comments.

Mr. Kevin Bland, California Framing Contractors Association and the Residential Contractors Association, by oral comment received at the December 17, 2009, Public Hearing.

KB: Mr. Bland expressed agreement with Mr. Pena’s and Mr. Wick’s comments. He also stated that the inspection issue had been discussed for a good portion of the advisory committee meeting, and his understanding was that the inspection would be part of the construction industry’s safe practices or Injury and Illness Prevention Program; the inspection would not be required every single day.

Response: See response to comment ET2. The Board thanks Mr. Bland for his comments.

Mr. Julio Petrini, by oral comment received at the December 17, 2009, Public Hearing.

JP: Mr. Petrini stated that common sense might dictate that, in the case of grocery stores, a supervisor could check the ladder each day and fill in the log, rather than having each employee that may use that ladder check it at the beginning of his or her shift.

Response: See response to comment ET2. The Board thanks Mr. Petrini for his comments.

Mr. John Bobis, Aerojet, by oral comments received at the December 17, 2009, Public Hearing.

JB1: Mr. Bobis stated that the definition of “qualified person” is clearly defined in all of the Title 8 safety orders to mean a person who has the proper education, experience, and demonstrated knowledge of the subject matter to identify potential dangers or damage associated with particular equipment.

Response: See response to ET4.

JB2: Mr. Bobis stated that in regard to the inspection requirement, a damaged rung on a ladder is fairly obvious, even to the untrained eye. He further stated that the record-keeping requirement is unnecessarily burdensome for employers, and it should be removed from the proposal.

Response: See response to ET3.

JB3: Mr. Bobis suggested that Section 3276(f)(4) be amended to indicate that three-point contact with the ladder is required at all times.

Response: Proposed Section 3276(f)(5) requires that employees be provided training on climbing and working on ladders, including the user's position and points of contact with the ladder. Proposed Section 3276(e)(15)(C) provides that when ascending or descending a ladder, the user shall face the ladder and maintain contact with the ladder at three-points at all times. The proposal does not require that the user maintain three-point contact with the ladder at all times because it is not always necessary, such as when working on a step ladder or platform ladder. Therefore, the Board declines to modify the proposal. The Board thanks Mr. Bobis for his comments.

Mr. Gerald Fulghum, by letter dated December 4, 2009, and written addendum dated December 5, 2009.

GF1: Mr. Fulghum stated that the new language of Section 3276(e)(9) is a composite of several existing regulations currently in effect, and it incorporates existing Section 1675(i); however, all the existing regulations in Section 1675 were complemented by Section 1675(j), which requires that all portable ladders in use be tied, blocked, or otherwise secured to prevent their being displaced. He stated that this is an important safety requirement, and even more so where a portable ladder is used to gain access and provide egress to an upper working level, because the displacement and slipping of non-self-supporting ladders used for this purpose has caused innumerable injuries and deaths to construction workers. In support of the above statement, he conducted a database search of reported and investigated accidents involving slipping, falling and displacement of non-self-supporting ladders using the federal OSHA FAT/CAT screening tool. He noted that threshold for reporting workplace accidents under current federal OSHA requirements is a fatality or hospitalization of 3 or more employees, per 29CFR Part 1904.39(a) (sic). He states that, in conducting his survey, he determined the following:

1. 1,163 accidents occurred as a result of non-self-supporting ladders slipping, falling, and being displaced.
2. He read in detail a sampling of 220 individual accident investigations conducted (19% of the total).
3. 59 of the 220 sampling were attributed to the ladder being unsecured (26.8% of 220).
4. The data suggest and supports a finding that approximately 311 serious injuries or deaths were anticipated to be the result of failing to secure a portable ladder.
5. Of the serious injuries or deaths, approximately one half of the total were where the ladder was unsecured and being used to gain access to an upper level working area, such as a roof, floor, or non-scaffold platform.

6. Given the higher federal standard for reporting accidents, and the majority – if not all of ladder accidents involve only one person using the ladder, it is not unreasonable to opine the number of serious injuries reflected in his research is deceptively low.

Mr. Fulghum also provided a copy of Section 1675(d) that was in effect in 1979, which he stated is clearly on point for the requirement to secure non-self-supporting ladders, and provides for five suggested ways for securing ladders. Mr. Fulghum stated that in light of the above, and with consideration to the long existing and sound requirement of the unambiguous language of Section 1675(j), he would advocate the Board retain the requirement and language of existing Section 1675(j) in proposed Section 3276(e)(9). He also implored the Board to amend the language of proposed Section 3276(e)(11) to require all non-self supporting ladders used for access to upper working level be tied, blocked, or otherwise secured to prevent their being displaced. He stated that the act of getting off or onto the ladder has been proven to unload the ladder at its feet and cause a side-load on the ladder structure, which results in the ladder slipping out at the base, or sliding sideways – both conditions likely to result in catastrophic injury or death.

Response: Proposed Section 3276(e)(9) is substantively the same as existing Section 3278(e)(7), which is proposed for deletion, and federal Section 1910.25(d)(2)(i). Existing Section 1675(j), which is also proposed for deletion, states: “Portable ladders in use shall be tied, blocked, or otherwise secured to prevent their being displaced.” The primary difference between proposed Section 3276(e)(9) and Mr. Fulghum’s suggested modification, which incorporates the text of existing 1675(j), is that the proposal requires ladders to be placed at approximately a 75-degree angle or be secured while Mr. Fulghum’s suggested modification would require both.

Approximately 75 degrees is the optimum angle of inclination for ladder stability as it pertains to slipping laterally at the top or outward at the base. The ANSI portable ladder standards referenced in proposed Section 3276(c), Design and Construction, require single and extension ladders other than wood ladders, be equipped with shoes, spurs, and other slip resistant devices; and, pass a bottom slip test at an angle of inclination of 75½ degrees. When it is not possible to place a ladder at the required angle of inclination due to space limitations or obstructions, the proposal requires the ladder to be secured to prevent slipping. The proposed comprehensive ladder standard consolidates the provisions in existing Section 1675 and the GISO ladder standards that address the hazard of the ladder slipping at the top or base, and it also provides preventive measures not found in the existing standards which address contributing factors to these types of accidents. These preventive measures include: prohibiting overreaching, providing scaffolds or other worker positioning equipment when work cannot be safely done from ladders, providing fall protection, and employee training. For the reasons stated above, proposed Section 3276(e)(9) and (e)(11), in conjunction with the other provisions of the proposed standard, is adequate to prevent ladders from slipping at the top or base, including ladders used for access to landings, and would allow operations to be done safely where it is not possible for a ladder to be inclined at a 75 degree angle. Therefore, the Board declines to modify the proposal.

GF2: Mr. Fulghum stated that existing Sections 1675 and 3277, which refers to the requirements for fixed ladders in Section 3277, are not equivalent to the counterpart federal OSHA regulation, and the Board should adopt the federal language to be at least as effective as the counterpart

federal regulation Section 1926.1053(a)(6)(i) which states: “The rungs and steps of fixed metal ladders manufactured after March 15, 1991, shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize slipping.” He stated that failure to comply with this requirement has resulted in many injuries.

Response: This rulemaking proposal was noticed to the public as a proposal to amend Title 8 standards to consolidate the standards that pertain to portable ladders. It is beyond the scope of this rulemaking proposal to make substantive changes to the standards governing fixed ladders. Staff will evaluate whether the state standards governing the use of fixed ladders in construction and general industry are ALAEA the counterpart federal standards and, if appropriate, will initiate action for possible future rulemaking.

GF3: Mr. Fulghum stated that the current regulations for Section 1676, Job-Made Ladders, require revision because many of the long-standing requirements for the safe construction of job-made ladders contained in ANSI A14.4 are not required in Section 1676. He stated that, although this is beyond the scope of the present Board proposal, it is a matter the Board should take up soon to insure that job-made ladders are properly constructed and of adequate structural strength to prevent injuries to workers.

Response: The Board agrees with Mr. Fulghum that amending Section 1676 to incorporate the provisions of ANSI A14.4 is beyond the scope of the present rulemaking proposal. The Board thanks Mr. Fulghum for his comments.